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REMARKS/ARGUMENTS

Claims 1-4, 6, 13-16 and 18-20 are pending in this application. By this Amendment, Applicant AMENDS claims 1, 2, 13, and 14 and ADDS claims 19 and 20.

Claims 1-4, 6, 13-16 and 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Takubo et al. (US Patent No. 6,329,610) in view of Tadaharu et al. (JP 6-268369). Applicant respectfully traverses the rejection of claims 1-4, 6, 13-16, and 18.

Claim 1 has been amended to recite:

"A laminated ceramic electronic component comprising:  
a laminated member including a plurality of stacked ceramic layers having a first ceramic layer and a second ceramic layer which is thinner than said first ceramic layer; and  
wiring conductors provided for a certain layer of said ceramic layers and including a via-hole conductor extending through said certain layer and a conductor extending along the principal surface of said certain layer; wherein  
via-hole conductors of different ceramic layers have different sectional sizes; and  
the aspect ratio expressed by H/D is within the range of approximately 0.1 to approximately 3.0, wherein H and D represent the height and radial length for each of said via-hole conductors, respectively;  
a first via-hole conductor extends through said first ceramic layer;  
a second via-hole conductor extends through said second ceramic layer; and  
the second ceramic layer is disposed inside the laminated member, such that the second ceramic layer is disposed between the first ceramic layer and another layer of the plurality of ceramic layers." (emphasis added)

Applicant's claim 13 recites features which are similar to features recited in Applicant's claim 1, including the above emphasized features. With the improved features of claims 1 and 13, Applicant has been able to provide a ceramic laminated member having improved reliability of the conductive pattern of the electronic component. Particularly, the sectional size and the thickness of the second via-hole conductor are smaller than those of the first via-hole conductor. As a result, the volume

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of the second via-hole conductor is less than the volume of the first via-hole conductor. The volume of a via-hole conductor changes less during sintering as the volume of the via-hole conductor decreases.

Thus, since the second ceramic layer having the second via-hole conductor provided therein is disposed in the inside of the laminated member, a disconnection caused by the change in volume of the via-hole conductor during sintering, particularly a disconnection between the second via-hole conductor and a conductor extending along the surface of the second ceramic layer, is effectively prevented. Therefore, the reliability of the conductive pattern in the electronic component is greatly improved.

The Examiner alleged that Takubo et al. teaches all of the features recited in claims 1 and 13, except for the aspect ratio, H/D, being within the range of approximately .1 to approximately 3. The Examiner further alleged that Tadaharu teaches an aspect ratio, H/D, that is in the range of approximately .1 to approximately 3 (for example, .25). Thus, the Examiner concluded that it would have been obvious to "incorporate the aspect ratio of .25 for each via hole conductor of Takubo [et al.], since the aspect ratio would eliminate continuity defects due to the shortage of filling in a via hole and defects at the time of forming a wiring pattern due to the extrusion of a via land as taught by Tadaharu.

Applicant has amended claims 1 and 13 to recite the features of "a second via-hole conductor extends through said second ceramic layer" and "the second ceramic layer is disposed inside the laminated member, such that the second ceramic layer is disposed between the first ceramic layer and another layer of the plurality of ceramic layers."

Neither Takubo et al. nor Tadaharu teaches or suggests a second ceramic layer that includes a via-hole conductor extending therethrough and that is disposed inside of a laminated body as recited in Applicant's claims 1 and 13.

As shown in Figs. 1 and 3 of Takubo et al., at best, the laminated member includes only two ceramic layers 21 and 23. Since Takubo et al. teaches only two

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ceramic layers 21 and 23, neither of the ceramic layers 21 and 23 can be disposed inside the laminated member or between two other ceramic layers. Thus, Takubo et al. clearly fails to teach or suggest the features of "a second via-hole conductor extends through said second ceramic layer" and "the second ceramic layer is disposed inside the laminated member, such that the second ceramic layer is disposed between the first ceramic layer and another layer of the plurality of ceramic layers" as recited in Applicant's claims 1 and 13.

Tadaharu teaches only a single layer 12 that includes a via-hole conductor. Tadaharu fails to teach or suggest a second ceramic layer, and thus, certainly fails to teach or suggest the features of "a second via-hole conductor extends through said second ceramic layer" and "the second ceramic layer is disposed inside the laminated member, such that the second ceramic layer is disposed between the first ceramic layer and another layer of the plurality of ceramic layers" as recited in Applicant's claims 1 and 13.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1 and 13 under 35 U.S.C. § 103(a) as being unpatentable over Takubo et al. in view of Tadaharu.

Accordingly, Applicant respectfully submits that Takubo et al. and Tadaharu, applied alone or in combination, fail to teach or suggest the unique combination and arrangement of elements recited in claims 1 and 13 of the present application. Claims 2-4, 6 and 19 depend upon claim 1 and are therefore allowable for at least the reasons that claim 1 is allowable. Claims 14-16, 18 and 20 depend upon claim 13 and are therefore allowable for at least the reasons that claim 13 is allowable.

In view of the foregoing amendments and remarks, Applicant respectfully submits that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

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The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

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